

## MAGNETORHEOLOGICAL FLUID DAMPER

### ABSTRACT

[0035] A magnetorheological damper device is provided having an increased shear interface area per unit volume of the device, which enhances the stroking force of the damper. The damper generally includes a cylindrically shaped housing; a magnetorheological fluid disposed in the cylindrically shaped housing; a piston assembly disposed within the cylindrically shaped housing in sliding engagement with the cylindrically shaped housing defining a first chamber and a second chamber, wherein the piston assembly comprises a plurality of cylindrically shaped fluid passageways extending from the first chamber to the second chamber, and an electromagnet; and a power supply in electrical communication with the electromagnet.